IN THE CLAIMS:

Applicants respectfully request that the Claims be amended so as to read as follows:

1. (Currently Amended) An optical pickup device comprising:

a light source;

a light-concentrating optical system for concentrating a light beam emitted from the light source on a recording surface of an optical disk;

an optical element means for splitting the light beam that has been reflected on the recording surface and has passed through the light-concentrating optical system;

a light-receiving means for receiving a split light beam as a first light beam from the optical element means and measuring quantities of light of the split light beam; and

an aberration signal generating means for generating an aberration signal that represents an aberration of the light-concentrating optical system based on a quantity of light of a portion near an optical axis of the first light beam and a quantity of light of a portion separated from the optical axis of the first light beam, ~~the light beam of which has been formed through splitting by the optical element means and incident on the light receiving means as a first light beam~~

wherein

the optical element means generates the first light beam by splitting the light beam, which has passed through the light-concentrating optical system, along a first straight line that is perpendicular to the optical axis of the light beam and serves as a boundary such that the first light beam is directed to the light receiving means,

the light receiving means comprises a first region photodetector and a second region photodetector arranged in positions located apart from the optical axis of the first light beam,

the first region photodetector and the second region photodetector are provided substantially linearly symmetrical with respect to a straight line axis of symmetry corresponding to the first straight line, said straight line axis of symmetry being located on the light receiving means and extending through the optical axis of the first light beam, and

the aberration signal generating means generates the aberration signal by using a difference between electric signals from the first region photodetector and the second region photodetector.

2. (As originally filed) An optical pickup device as claimed in claim 1, further comprising:

a focal shift signal generating means for generating a focal shift signal by using the aberration signal based on the quantity of light measured by the light-receiving means.

3. (Cancelled, without prejudice)

4. (Currently Amended) An optical pickup device as claimed in claim ~~3~~ 1, wherein

the optical element means generates a second light beam by splitting the light beam that has passed through the light-concentrating optical system along a second straight line perpendicular to the optical axis of the light beam and serves as a boundary ~~and guiding~~ such that the second light beam is directed to the light-receiving means,

the light-receiving means comprises ~~first and second regions~~ a third photodetector region and a fourth photodetector region,

the ~~first~~ third photodetector region and the ~~second~~ fourth photodectector region are provided approximately linearly symmetrical with respect to an axis of symmetry of a straight line that extends through the optical axis of the second light beam and is located on the light-receiving means corresponding to the second straight line,

the ~~first~~ third photodectector region and the ~~second~~ fourth photodetector region are located at ~~a~~ respective distances from the optical axis of the second light beam, ~~the~~ said respective distances being shorter than ~~a distance~~ the respective distances of the ~~third~~ first photodetector region and the ~~fourth~~ second photodetector region from the optical axis of the first light beam, and

a focal shift signal generating means is provided for generating a focal shift signal by using a difference between electric signals from the ~~first~~ third photodetector region and the ~~second~~ fourth photodetector region.

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5. (Currently Amended) An optical pickup device as claimed in claim 4, wherein, the focal shift signal generating means generates the focal shift signal according to calculation expressed by:

$(S1 - S2) + (S3 - S4) \times K$

where K is a constant, and S1, S2, S3 and S4 are signals from ~~the first, second, third and fourth~~ the third, fourth, first and second regions, respectively.

6. (As originally filed) An optical pickup device as claimed in claim 4, wherein
a storage means for storing a plurality of focal shift signals in correspondence with a plurality of combinations of the difference between the electric signals from the first region and the second region and the difference between the electric signals from the third region and the fourth region, and
the focal shift signal generating means reads from the storage means the focal shift signal corresponding to the difference between the electric signals from the first region and the second region and the difference between the electric signals from the third region and the fourth region based on the electric signals from the first through fourth regions from the light-receiving means, and outputs the focal shift signal.

7. (Currently Amended) An optical pickup device as claimed in claim 4, wherein the first straight line and the first light beam are identical to the second straight line and the second light beam, respectively, when the first through the fourth photodetector regions have a common optical axis.

8. (Currently Amended) An optical pickup device as claimed in claim 7, wherein the ~~first~~ third photodetector region and the ~~second~~ fourth photodectector region of the light-receiving means are each formed in a semicircular shape whose chord coincides with the axis of symmetry, and

the ~~third~~ first photodetector region and the ~~fourth~~ second photodetector region of the light-receiving means are formed in semicircular annular shapes whose internal circumferences have radii greater than radii of outermost circumferences of the ~~first~~ third photodetector region and the ~~second~~ fourth photodetector region and arranged outside the outermost circumferences of the ~~first~~ third photodector region and the ~~second~~ fourth photo detector region, respectively.

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9. (Currently Amended) An optical pickup device as claimed in claim 7, wherein the ~~third region, the first region, the second region and the fourth~~ first photodector region, the third photodetector region, the fourth photodectector region and the second photo detector region of the light-receiving means are each formed in a rectangular shape and arranged parallel in this order in a direction perpendicular to the axis of symmetry.

10. (As originally filed) An optical pickup device as claimed in claim 1, wherein the light-concentrating optical system comprises an object lens of a combination of a plurality of lenses.

11. (As originally filed) An optical pickup device as claimed in claim 1, further comprising:

a spherical aberration correcting means for correcting a spherical aberration of the light-concentrating optical system based on the aberration signal from the aberration signal generating means.

12. (As originally filed) An aberration correcting method for correcting a spherical aberration by means of the optical pickup device claimed in claim 11, comprising the steps of:

correcting the focal shift of the light-concentrating optical system; and

thereafter correcting the spherical aberration.

13. (As originally filed) An aberration correcting method for correcting a spherical aberration by means of the optical pickup device claimed in claim 11, comprising the steps of:

periodically driving the spherical aberration correcting means; and

correcting the spherical aberration of the light-concentrating optical system based on the spherical aberration detected by an aberration detecting means during the driving.

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14. (Currently Amended) An aberration detecting unit comprising:

a light-concentrating optical system for concentrating a light beam on a reflecting body;

an optical element means for splitting the light beam that has been reflected on the reflecting body and has passed through the light-concentrating optical system;

a light-receiving means for receiving ~~a~~ at least one split light beam having an optical axis from the optical element means and for separately measuring ~~a quantity~~ quantities of light in predertermined portions ~~light~~ of ~~the~~ each split light beam that are respectively located near to and separated from its optical axis; and

an aberration signal generating means for generating an aberration signal that represents an aberration of the light-concentrating optical system based on ~~a quantity~~ said measured quantities of light ~~of a~~ from said predetermined portions of said at least one split light beam near ~~an~~ said optical axis of each of said at least one split light beam and ~~a quantity~~ measured quantities of light ~~of a~~ from said predetermined portions of said at least one split light beam separated from ~~the~~ said optical axis of said split light beam~~, the light beam of which has been formed through splitting by the optical element means and incident on the light receiving means as a first light beam~~.